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FAMOUS MINERAL LOCALITIES: BERYL MOUNTAIN, ACWORTH, N. H.

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Acworth, N. H., is justly famed for the enormous beryl crystals found on Beryl Mt., in the southern part of the town. A crystal from this locality in the National Museum at Washington is nearly four feet long and eighteen inches in diameter. As early as 1840 these beryls were widely known; Dr. Jackson, in his geological report of New Hampshire, stated that at the Imperial Museum in Vienna he was shown a beryl eight inches in diameter, which had been found on Beryl Mt., and was highly prized. However, while these beryls possess magnitude, they are lacking in beauty, for they are generally opaque, and have indistinct faces.

The nearest railroad station is Bellows Falls, Vt., on the main line up the Connecticut River valley between New York and Montreal. Several express trains from New York, a seven hours journey distant, pass thru daily. From Bellows Falls to South Acworth P. O. is nine miles, and Beryl Mt. is one mile south of South Acworth. A trail leads from the highway at the base of Beryl Mt. up to the pit where the beryls are found, which lies near the summit.

The beryls occur in a pegmatite vein, which here is composed almost entirely of quartz, with the beryl as an accessory mineral; feldspar occurring in small quantities. The quartz is of a snow-white color tinged with delicate pink or purple; it has been used locally for tomb-stones, to supply which the pit was first opened.

A semi-circular excavation about thirty feet across has been blasted away from the rock, and the very steep approach has been strewn with fragments of quartz and beryl, which have accumulated to a depth of several feet, near the pit.

Imbedded in the quartz there are exposed enormous beryls, some of them almost a yard in diameter, and many smaller ones. It is difficult to dig these out, as they are very firmly imbedded; and better results may be obtained by digging in the talus below the pit. The beryl is generally of apple-green color, opaque, and poorly crystallized. The smaller crystals occasionally exhibit distinct faces, the forms m $(10\bar{1}0)$ and c (0001) being practically the only ones to be found.

Much less common are rather showy semi-translucent, brownish yellow crystals; bluish green ones are not uncommon. Faulted crystals are not unusual, and some have been broken and recemented many times in an inch.

It is rather disappointing to be unable to carry off some of the larger crystals, but even to see them *in situ* is worth the trip. Then too, a beautiful view may be obtained of the New Hampshire and Vermont hills from the summit of the mountain.

NOTES AND NEWS

On October 1, 1918, Col. Joseph Willcox, the last of the early Pennsylvania mineralogists, passed away at the age of 89. A native of Delaware County, he became closely associated with Genth, Rand, Jefferis, and others in mineralogical exploration in the southeastern part of the state; and he later collected extensively both minerals and shells in Florida, North Carolina, New York, and Canada, the collections of the Wagner Free Institute of Science and the Academy of Natural Sciences of Philadelphia being rich in material obtained by him. He was one of the commissioners of the Second Geological Survey of Pennsylvania, curator of the Isaac Lea Collection of Tertiary Mollusca in the Academy of Natural Sciences; a trustee and secretary of the board of the Wagner Free Institute of Science; and an honorary member of the Philadelphia Mineralogical Society.

Dr. Arthur L. Day, director of the Geophysical Laboratory of the Carnegie Institution of Washington, has resigned to take up research at the Corning Glass Works, Corning, New York. Dr. Olaf Andersen, petrologist at the same institution, has accepted a position as director of an experimental silicate laboratory to be maintained by the Norwegian government at Kristiania.

In a recent review in *Science* of a book on South America, the following bits of mineralogical misinformation are quoted: In the nitrate fields of Chile, "the surface of the country is all upheaved"—this being based on a photo of a quarry dump! In Brazil, "rich beds of . . . platinum are known to exist"—we wish platinum did occur in beds!! And finally, "pearls . . . are *mined* in various parts of the country"—further comment superfluous!!!

PROCEEDINGS OF SOCIETIES

THE PHILADELPHIA MINERALOGICAL SOCIETY

WAGNER FREE INSTITUTE OF SCIENCE, September 12, 1918

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Dr. Leffmann, in the chair. Thirteen members were present.

Mr. Hugh Alexander Ford, Philadelphia, was nominated by the executive council, and elected to active membership.

The following officers were elected for 1918–1919: President: Dr. Henry Leffmann; Vice-president: Mr. Harry W. Trudell; Treasurer: Mr. Harry Warford; Secretary: Dr. A. A. Jones. The latter subsequently withdrew.

Mr. Gordon reported a trip with Mr. Ford to Hellertown, Pa., where beraunite and wavellite were found; Friedensville, Pa., where calamine was obtained; Easton, Pa., asbestos and eastonite; and Franklin, N. J., and Paterson, N. J.

At Franklin, the limestone quarries proved unproductive (altho the best present quarry at Hamburg was not visited). The Buckwheat open cut has been entirely worked out, and little is therefore obtainable. The dumps are extremely barren, with the exception of the Parker Shaft dumps, which require quite deep digging, however, to produce anything. At the picking table, rhodonite, willemite, pink fluorite, crocidolite, and manganosite (the latter from a workman) were obtained. Two local collectors, speculators, were next visited. These men refuse to put a price on their specimens, expecting the prospective purchaser to make a bid. We succeeded, however, in getting a few specimens, altho at rather high prices. Their favorite trick is to say that some particular specimen, that had attracted one's eye, was not for sale, thus anticipating a high bid. Some gem willemites were purchased, and a remarkable little group of three nearly colorless sphalerite crystals, of simple form, the largest measuring about three quarters of an inch. A visit was paid to Captain Rowe, who has a very fine collection. Magnificent rhodonites, willemites, franklinites and spinels, were seen, and one particularly interesting Franklin mineral, native silver. Sterling Hill is unproductive of specimens.

Mr. Trudell reported a trip to the Falls of French Creek, Jones mine and Birdsboro, with Mr. Gordon. At the Falls, nothing of interest was found. A visit was made to two of the very old galleries of the mine, the 80- and 90-foot levels, by way of the old shaft. Of particular interest were stalactites of malachite in gel form hanging from the roof, each with a clear drop of solution at the apex; and similar brittle brown stalactites of limonite. At Jones mine, aragonite, dodecahedral magnetite, and chrysocolla were abundant. Prehnite, calcite, and stilbite were obtained at Birdsboro.

The society then adjourned for an examination of the specimens.

SAMUEL G. GORDON. *Secretary*

ABSTRACTS OF MINERALOGIC LITERATURE

NOTES ON THE GENESIS OF THE DIAMOND. David Draper and W. H. Goodchild. *Mining Journal* (London), **113**, 357–359 and 365 (May 20 and 27), 1916.

An exceptionally able discussion of the origin of the diamonds of South Africa (heretotore overlooked by abstractor because of the rather unusual place of publication). By applying modern advances in mineralogy and related sciences, all the features shown by the deposits are adequately accounted for. For instance, the concentration of basic minerals in the volcanic "pipes" is readily explainable as the result of gravitative differentiation, the heavier minerals, such as olivine and iron-bearing pyroxenes, sinking and collecting, to form peridotite. After solidification of the upper portions of the magma, the still molten lower parts have evidently been acted upon by magmatic gases. The serpentinization observed in the rocks is much more likely to have been produced by the action of water at high temperatures and pressures than by weathering, as is often assumed. The well-known physico-chemical principle, according to which in the presence of a solvent saturated with a given substance, large crystals always tend to grow at the expense of smaller ones (which is usually overlooked in discussions of mineral genesis), is shown to be applicable here. For under these conditions diamond is undoubtedly slightly soluble in the magma, and numerous minute crystals formed at an early stage would later undergo transformation into small numbers of relatively large ones. The problem of the origin of these remarkable diamond deposits may thus be regarded as completely solved. E. T. W.

THE ORIGIN OF CHERT. Francis M. Van Tuyl. Colo. Sch. Mines. *Am. J. Sci.* [4], **45**, (6), 449–456 (1918).

Many instances are described in which the evidence is overwhelmingly in favor of the formation of chert by replacement of preëxisting limestone strata. The view of Tarr, recently abstracted in these columns, that the Burlington chert is of primary origin certainly does not apply to a large number of deposits, altho the silica may well have been of inorganic origin. E. T. W.

NEW MINERAL NAMES. [Fourth List.] W. E. Ford. Yale Univ. *Am. J. Sci.* [4], **44**, (6), 484–486, 1917.

A descriptive list of 6 new minerals announced during 1917. All have been noted in *Am. Min.* E. T. W.

NEW MINERAL NAMES. [Fifth List.] W. E. Ford. Yale Univ. *Am. J. Sci.* [4], **45**, (6), 477–478, 1918.

Five additional new minerals described during the latter part of 1917 and the early part of 1918 are listed. Among them is gilpinite, which was first published in *Am. Min.* (**2**, (6), 75–79, June, 1917). The others have been noted in our New Minerals column. E. T. W.

AN ALPINE OCCURRENCE OF SAPPHIRINE. H. P. Cornelius. *Centr. Min. Geol.*, **1916**, 265–269; thru *Chem. Abstr.*, **11**, (15), 2181, 1917.

Sapphirine is found in the Codera valley in metamorphic rocks.

E. T. W.